

whether they should buy, sell, or stay cool. Their enthusiasm was overwhelming! Of course, they also became curious about the companies and wanted to know what they produced, what was happening in the world that was affecting that particular company, and mathematics skills needed to improve their ability of determining advantages and disadvantages of certain stocks. As a class, we did a lot of searching, and they became more aware of the world around them.

At the end of the year, the students sold all stocks back and figured out their gains and losses. It was fantastic! They celebrated their victories, and those who suffered a loss were eager to try again.

The best testimony of all came a month ago when one of the students who is now a freshman saw me at our building and asked, "Miss Reynolds, are you going to do the stock market again? I still check on my companies at least once a week, and they're still doing good!" When a student who nearly failed remembers something that was done to increase awareness in mathematical skills, I feel that it was truly a worthwhile project!!!

Why did it work? I believe that by giving them the opportunity to study something that a teacher would normally use for a high achieving class served as an inspiration and challenge to this group of low achievers. The improvement in mathematical skills and in the confidence of these people was definitely worth the time and energy put into the project. It was evident that this type of activity can be effective with low achieving students as well as with high achieving students.

TECHNIQUES FOR TEACHING DEVELOPMENTALLY HANDICAPPED STUDENTS

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Teaching mathematics to developmentally handicapped students at the primary level can be challenging to a teacher's creativity

and imagination. We all know that no one way works best for everyone, and the key is to touch on many methods.

In my primary D.H. classroom my approach is "whatever works." Most of my students are struggling just to learn basic addition and subtraction facts. Although my classroom atmosphere is geared to individuals or small groups, I believe that many of the same methods could be used in regular classrooms.

As most primary teachers do, I begin with the concrete. I usually have the students act out the addition or subtraction by using themselves. We begin with one student standing in front of the class and "add" one or more and ask, "How many students are standing up?" Skits can also be done. The Shoemaker and the Elves can be adapted--when the Shoemaker has made one shoe and the Elves make one more. The visualization is helpful to many students who have difficulty grasping mathematical concepts. I also try to reinforce this as I teach other subject areas, or even while lining up for recess or lunch.

Before we progress to paper and pencil work, we usually do problems on the chalkboard. Most children love to write on the chalkboard and therefore find this motivating. At this point we also use objects for manipulation. Blocks are good and I have found it best to use the same color and size. Some children pay too much attention to the sizes and colors if they are not all the same. I have also used peanuts and let the children eat the peanuts if their answer is correct.

When the work has advanced to paper and pencil stage, I begin to color code. Addition problems are written in red and subtraction problems in blue. I usually just mark the top of the paper, but you may find it necessary to have students mark each problem before you begin the lesson.

I allow any aides that help them. Some students use their fingers and others like to draw lines on their paper. Some students also use number lines which are attached to their desks. These can be plain or fancy, such as lily pads which a frog can hop along. I have found no one way to be better than another since it varies from child to child.

The color coding really works well when they get into workbook pages with mixed addition and subtraction. Students can mark problems in color before the lesson, and it gives them an extra cue to avoid confusion. I give them a lot of practice with addition and subtraction separately, before they have to work with mixed pages.

I also have them cover up all but the row they are working on, by folding paper or using a cover sheet. A window card can help many children to attend to one problem at a time.

I never have them do too many problems at once since most of my students have difficulty attending to tasks for extended periods of time. When attending to tasks becomes stressful, they become frustrated, so I limit the number of problems. The number of problems to be given must be judged on an individual basis.

I allow students to check their answers with flash cards. It is reinforcing to visualize the correct answer. A calculator could also be used, but they would not have the benefit of seeing the problem together with the answer.

Developmentally handicapped children benefit from learning through as many modalities (visual, auditory, tactile, kinesthetic) as possible. I try to touch on their five senses in any way I can, and the children let me know what works best for them by using a particular method. Overlearning is the key and I allow any "crutches" to achieve this state. If and when the children are ready to give up the aides because they no longer need them, they do it on their own.

Lastly, it pays to be an actress. The children need your animation and enthusiasm. Facial expression and voice levels are important factors. If they believe that mathematics is fun and exciting to you, it is more likely to be perceived as worth learning.